PATENT APPLICATION

ATTORNEY DOCKET NO. __10006131-1__

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):   Daniel R. Pearson

Application No.: 09/680,069

Filing Date: 10/05/2000

Title: ADAPTIVE SCAN DRIVER AND SCAN PERIPHERAL

Confirmation No.: 8727

Examiner: Pokrzywa, Joseph

Group Art Unit: 2622

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on __April 11, 2005__ .

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)
for the total number of months checked below:

( )	one month	$120.00
( )	two months	$450.00
( )	three months	$1020.00
( )	four months	$1590.00

( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of __$500.00__ . At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

(X) I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450. Date of Deposit: __June 10, 2005__
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Rev 12/04 (Aplbrief)

Respectfully submitted,

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By

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10806131-1

PATENT

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Applicant:	Daniel R. Pearson
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APPELLANT'S BRIEF ON APPEAL PURSUANT TO RULE 192

REAL PARTY IN INTEREST

Hewlett-Packard Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims pending, finally rejected and appealed 1-13.

STATUS OF AMENDMENTS AFTER FINAL

No amendments were filed after the final office action dated January 19, 2005. Response B (after final) was filed on March 8, 2005, and was considered as indicated by the Advisory Action Mailed March 23, 2005.

SUMMARY OF INVENTION

Generally, the invention concerns scan peripherals. P1, L3; FIG. 1 (items 12, 16a, 16b). "A scan peripheral is a scanner or multi-function device including a scanning function." P1, L7-8. Scan peripherals can be accessed by a single machine or by multiple users over a network, for example. P1, L8-12. A scan server (FIG. 1, item 10) can assist with controlling access to scan peripherals. "A scan peripheral server is typically realized in software that is installed in some type of general purpose computer system. Hardware might also be used, but would be more difficult to realize. Server software may be run in the general purpose computer of a specialized physical device, such as a Hewlett-Packard JetDirect® external or internal server. JetDirect® devices can control multiple scan peripherals, including scanners and multi-function peripherals." P1, L13-18.

"Each scan peripheral requires a *driver, which functions to control a scan job from a particular peripheral according to the capabilities and protocol for the particular peripheral.*" P1, L18 – P2, L1 (emphasis added). "A problem arises when a scan peripheral server having a set of drivers or a stand-alone driver encounters a scan peripheral unaccounted for by the existing driver(s). This may happen, for example, when scan peripherals are replaced with new scan peripherals or new scan peripherals are added. In such a case, a new scan peripheral will not work with the old server/driver and a user must take additional inconvenient steps to make the new scan peripheral work." P2, L4.

Through the invention, scanning operations may be carried out even when the scan peripheral server lacks a driver for the scan peripheral. A driver of the invention automatically determines a scan peripheral's capabilities and uses the information to configure itself from a set of driver modules. P2, L15-20; See, e.g., claims 1, 8, and 13; FIG. 2a, Steps 48-54; P6, L11 – 29. In the invention, an automatic configuration of a *scan driver* may take into account user-selected *scan parameters*, and then "[r]eturned *parameters* allow the *driver* 18 to configure itself based upon those selected parameters and the scan peripheral's capabilities." P6, L13-

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14 (emphasis added); FIGs. 2a -2b. "In FIG. 2b, the driver 18 checks the control language 50 and then configures itself according to the control language, for example, as a first language configuration 52 or as a second language configuration 54. Scanning control languages may be manufacturer specific languages or industry shared languages." P6, L21-24.

ISSUES ON APPEAL

1) Whether the §102 rejection of claims 1-11 and 13 should be reversed as being based on an improper claim interpretation that concludes that scan parameters may be interpreted as "pre-stored driving modules" (claim 1), a stored "set of driver modules" (claim 8), or a "set of scan drive modules" (claim 13) because the specification, the claims, and the applied Lo patent all define scan drivers and scan parameters separately?

2) Whether the §102 rejection of claim 12 should be reversed because the office action fails to interpret the claimed "capability descriptor" consistently with the specification and fails to adequately identify the particular feature of Lo alleged to correspond to the "capability descriptor" stored in the memory of the claim 12 peripheral?

3) Whether the §103 rejection of claim 6 should be reversed as being based upon an incorrect understanding of the art, and whether the rejection of claims 7-9 should be reversed because the examiner has failed to set forth a prima facie case and the evidence of record does not support the conclusion of obviousness?

GROUPING OF CLAIMS

To conduct this appeal economically and for the limited purposes of this appeal, dependent claims 2-7 stand or fall with associated independent claim 1; and dependent claims 9-11 stand or fall with associated independent claim 8.

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ARGUMENT

I.   The §102 Rejection of the Claims 1-11 and 13 In View of Lo is Based Upon an Unreasonable Determination that Lo's Scan Parameters are the Same as "Pre-Stored Driving Modules" (claim 1), a Stored "Set of Driver Modules" (Claim 8), or a "Set of Scan Drive Modules" (claim 13) Because the Interpretation Ignores the Different Meaning Given in the Art and the Record to Scan Parameters and Scan Drivers.

Claims 1-11 and 13 stand rejected under §102 in view of Lo. This rejection should be reversed as it is based upon an improper interpretation of the claims, and a misinterpretation of Lo. The present claims, the specification, the art, and Lo all give different, clear meaning to scan drivers that is different than scan parameters, and the Examiner's reading of Lo's scan parameters upon the claimed scan drive modules is accordingly unreasonable.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). "The ordinary and customary meaning of a claim term to one of ordinary skill in the art may be ascertained from a variety of sources, first, as *Vitronics* instructs, from the intrinsic evidence of record such as the claims themselves, the written description, and the prosecution history, but also from the 'common understanding' of the terms that may be reflected in dictionaries, encyclopedias, and treatises." *W.E. Hall Co., Inc. v. Atlanta Corrugating, LLC*, 370 F.3d 1343, 1350(Fed. Cir. 2004) (citation omitted). Claim terms are presumed to have the ordinary and customary meanings attributed to them by those of ordinary skill in the art. *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302 (Fed. Cir. 2003). The broadest reasonable interpretation of the claims to be given during examination by the USPTO must be consistent with the interpretation that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353 (Fed. Cir. 1999).

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The use of different claim terms gives rise to an inference that separate meaning is intended by the different terms. *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373(Fed. Cir. 2004). Claim terms must be given the definition indicated in the specification and the claim. *Vitronics Corp. v. Conceptronic, Inc.,* 90 F.3d 1576, 1585(Fed. Cir. 1996). "Prior art references may also be more indicative of what all those skilled in the art generally believe a certain term means" than extrinsic evidence. *Id.* at 1584.

The office actions have ignored the ordinary meaning given scan drivers and scan parameters in the art, used in the present specification, and even in the Lo reference. Most recently, in the advisory action, the position is explained with reference to a general dictionary definition of "modules" (advisory action at p. 3). The advisory action also discussed "pre-stored printer drivers", which have never been mentioned during prosecution. What the office action fails to account for is the clear intrinsic evidence that indicates that the broadest reasonable interpretation of a scan *drivers* as being different from scan *parameters*. Drivers are given clear meaning in the specification, claims, and Lo, and parameters are indicated in all three sources as having a separate meaning.

a. **The Present Specification Sets forth the Ordinary Meaning for "Pre-Stored Driving Modules" (Claim 1), a Stored "Set of Driver Modules" (Claim 8), or a "Set of Scan Drive Modules" (Claim 13), and that Ordinary Meaning is Ignored in the Rejection.**

The specification is one of the many intrinsic sources in the present record that establish that the rejection fails to accord ordinary meaning to the claimed scan driver modules by comparing them to Lo's scan parameters. This is the predication for the rejection, and if the interpretation is incorrect then the rejection has failed to establish a §102 rejection. A first source for understanding the claim terms is the present specification.

According to the present specification, a driver "functions to control a scan job from a particular peripheral according to the capabilities and protocol for the

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particular peripheral." P1, L18 – P2, L1. In the invention, an automatic configuration of a *scan driver* may take into account user-selected *scan parameters*, and then "[r]eturned *parameters* allow the *driver* 18 to configure itself based upon those selected parameters and the scan peripheral's capabilities." P6, L13-14 (emphasis added); FIGs. 2a -2b. "In FIG. 2b, the driver 18 checks the control language 50 and then configures itself according to the control language, for example, as a first language configuration 52 or as a second language configuration 54. Scanning control languages may be manufacturer specific languages or industry shared languages." P6, L21-24. FIG. 2b illustrates a scan driver configuring itself with the appropriate driver modules according to the peripheral capabilities and user set scan parameters. P6, L13-20. "Using the configured driver modules, the scan is then executed 72." P6, L28-29.

Scan parameters are options selected by a user. P6, L6-13. Drivers, on the other hand, function "to control a scan job from a particular peripheral according to the capabilities and protocol for the particular peripheral." In the claims, a driver is configured from driver modules. Thus, a driver of the invention uses scanner capability information and scan parameters to "configure itself from a set of driver modules."

b. The Lo Reference Itself Uses the Same Ordinary Meaning Accorded Scan "Drivers" and Driver Modules, and Further Establishes as Distinct Ordinary Meaning for "Scan Parameters".

Another source to indicate that the office action's interpretation of scan parameters as reading on the "pre-stored driving modules" (claim 1), a stored "set of driver modules" (claim 8), or a "set of scan drive modules" (claim 13) is the Lo reference itself. Lo gives clear different meaning to scan drivers and scan parameters. According to Lo, scanner parameters are options such as the "resolution, brightness, and contrast". C15, L45-46. In contrast, a scan driver is "software which controls the image device" and is "analogous to a print driver". C5, L37-40. Scan options or parameters are not the same as a scan driver, as clearly indicated by Lo. In Lo, the

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scan driver is the "source device driver" that is "usually written by the manufacturer of the scanner". C5, L32-41. Lo, like any other ordinary artisan, recognizes the difference between scan parameters and scan drivers. "The source device driver 42 includes a source user interface 44 which allows control of the scanner 50 including the control of the parameters of the scanner 50." C5, L34-36.

c. The Different Use of Driver Modules and Scan Parameters in the Claims, Further Shows that the Interpretation of Lo's Scan Parameters as Corresponding to the Disputed Claim Terms is Unreasonable. .

The claims themselves are a third source to show that ordinary meaning of drivers and parameters indicates that the rejection is based upon an unreasonable interpretation. "[T]he use of [different claim] terms in close proximity in the same claim gives rise to an inference that a different meaning should be assigned to each." *Bancorp Services, L.L.C. v. Hartford Life Ins. Co.* 359 F.3d at 1373. This inference is not valid only where it is apparent that the terms were intended mean the same thing, such as when poor drafting uses different terms for the same element. *Id.*

In claim 1, a scan driver is configured from "a set of *pre-stored driving modules* being selected according to *user set parameters* in the scan job and capabilities". Parameters are clearly given different meaning in claim 1 from the pre-stored driving modules that are selected for form a scan driver. The specification, as indicated above, also is consistent. Nowhere does the present application of the art give the same meaning for scan "parameters" and scan "drivers" or "driving modules". The claim 1 phrase would be indefinite if "parameter" and "driving modules" had the same meaning.

In claim 8, similarly, the step of "accepting parameters for a scan job" is used. The claim also includes the steps of "linking driver modules". From this, it is improper to interpret scan parameters (options for a scan job) as the same as scan drivers (which are necessary to control the operations of a scan device).

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d. When the Claim Terms are Given Their Ordinary Meaning as Established by the Specification, by Lo, and by the Claim Language Itself, It is Clear That Lo Fails to Disclose the Invention of Any of Claims 1, 11, or 13.

Nothing in Lo describes linking a set of pre-stored driving modules as required by claim 1, linking driver modules from a set of driver modules and controlling a scan job according to the driver modules as required by claim 8, or configuring the scan driver module from a set of scan driver modules as required by claim 13. This is explicitly contradicted by Lo, in fact, because Lo describes the very same conventional process that is overcome by the presently claimed invention. In column 5, beginning at line 31, Lo explicitly describes that the scan peripherals in the system of Lo require a "software or source device driver 42" which "is software which controls the image acquisition device and is written by the device developer to comply with TWAIN specifications". Lo goes on to explain that "the source device driver 42 is usually written by the manufacturer of the scanner 50. The source device driver 42 may be installed in a manner which analogous to installing a print driver in a Windows based computer." Nothing in any of the embodiments of Lo discloses constructing a scan driver according to capability descriptors and pre-stored driving modules as is required in varying scope by each of independent claims 1, 8 and 13. Lo assumes that a driver for the scanner is available from the manufacturer and never discusses creating a scan driver based upon driver modules. Instead, what Lo discloses is a system and methods that permit a client computer to communicate over a network to control a scanner, but in each case it is assumed that the driver that is provided by the manufacturer is available to control the scan operation.

The examiner has viewed the TWAIN interface as a scan driver (Advisory Action P. 3, Final Office action P. 4), but the above-cited portion of column 5 and the remaining portions of the Lo patent contradicts such an interpretation. TWAIN and the packet structure, such as those shown in Figs. 7A-7L, require a pre-written manufacturer's driver 42. There is a method disclosed for communication packets that allows the creation of a scan job from a client computer, but the creation

of a scan job by a client is not the same as the configuring of a driver module as is claimed. Each of the portions of Lo cited by the examiner relates to communication packets for creating a scan job and assumes that the device driver 42 that is pre-written by the manufacturer is available for the scanner that would be accessed by the scan job.

The examiner cited column 12, lines 7-50 and column 15, line 34 through column 16, line 64 and step 468 in Fig. 8B in the first office action as meeting the applicable claim limitations. The portion of column 12 only discusses the communication of scanner settings to a client so that the client may select "the ranges and possible settings of the scanner" for a particular scan job. There is no discussion of configuring a set of modules based upon this information, and the figure mainly concerns the TWAIN style packet that will be used for the communication of the information to the client. The portion in columns 15 and 16 discusses the display of the scanner settings at the client computer 102. This again allows the client to choose settings so that a scan job may be conducted, but there is no disclosure of forming a driver from a set of modules, as again Lo relies upon the driver 42 provided by the manufacturer. The likening of the TWAIN driver to the scan driver contradicts Lo's disclosure of a device driver 42 and the definition of TWAIN as a "standard software protocol and API (application programming interface) for communication between software applications and image acquisition devices (the source of the image data)." In sum, there is no support anywhere in Lo for anything other than a "source device driver 42" that "may be installed in a manner which is analogous to installing a print driver in a windows-based computer." This is the exact problem solved by the invention, which overcomes the problems encountered when a scan server "a set of drivers or a stand-alone driver encounters a scan peripheral unaccounted for by the existing driver(s)." P2, L4-5.

II. The Rejection of Claim 12 Fails to Recognize the Clear Meaning Given Capability Descriptor in the Claims and the Specification.

In the advisory action, the rejection of claim 12 is defended on the basis that the term is unduly broad. Advisory Action P. 4 ("as the claim is currently worded, one of ordinary skill in the art can interpret the peripheral as the scanner server 130"). This explanation, however, fails to account for the meaning of the claim.

Claim 12 specifies a peripheral that stores in its memory a scan capability descriptor and communicates the capability descriptor in response to a query requesting the same. No such scan device is disclosed in Lo. The scanners 50 or 144 utilized in Lo are conventional scanners. The examiner points to portions of column 8 and column 9 as disclosing a peripheral including a scanning capability that stores a scan capability descriptor in its memory. Nothing in this portion of Lo discloses that the scan device 50 or 144 stores a capability descriptor or responds to queries regarding the same. Instead, the portion cited by the examiner discusses storing of information by the scanner server computer 130, and not the scan device 144 shown in the same figures. The scanner server computer 130 creates a scanner image table 160 shown in Fig. 5 and other information that permits a client to execute a scan job over the network. Nowhere is there any discussion of the scanner 144 or the scanner 50 discussed earlier in the specification of storing a capability descriptor. As discussed in the instant specification, when a scanner provides a capability descriptor it facilitates the automatic creation of a scan driver as is enabled by certain embodiments of the invention. See, FIG. 2a, step 24, e.g., and P5, L3-13. "Information contained in the capability descriptor provides the basis for identifying the exact nature of scanning supported by a scan peripheral with which the capability descriptor is associated." P4, L21-25. Whether or not the peripheral is the server as suggested by the examiner, Lo still lacks a capability descriptor. A "capability descriptor provides information about the scan capabilities offered by the peripheral and is preferably realized as a data string." P4, L21-25.
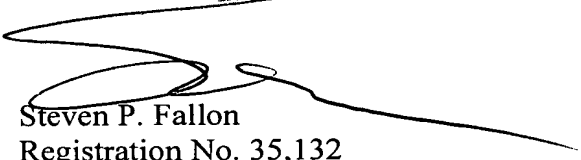
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CONCLUSION

For the above reasons, Applicant requests the Board to reverse the outstanding rejections. The case should then be permitted to pass to allowance.

Respectfully submitted,

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June 10, 2005

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<u>CLAIMS</u>:

1.   A program for interfacing a client computer to one or more scan peripheral devices, the program comprising functions for:

          querying a scan peripheral for a capability descriptor;

          determining whether an appropriate capability descriptor is obtained in response to said step of querying;

          storing a capability descriptor associated with a scan peripheral for which an appropriate information capability descriptor has been received as determined in said step of determining;

          configuring a scan driver for a scan job for a scan peripheral when a scan job is requested by a client by linking a set of pre-stored driving modules, a set of pre-stored driving modules being selected according to user set parameters in the scan job and capabilities indicated in a stored information capability descriptor concerning a scan peripheral to which the scan job is directed.

          2. The program according to claim 1, further comprising a step of de-linking pre-stored driving modules upon completion of a scan job.

          3. The program according to claim 1, wherein said step of configuring includes extracting information from a stored capability descriptor to alter a user interface dependent upon a peripheral's capabilities.

          4. The program according to claim 1, wherein a capability descriptor stored in said step of storing comprises a string including fields indicating dots per inch capabilities, paper size capabilities, color/grayscale options, image formats supported, and whether or not a preview scan is supported.

          5. The program according to claim 1, stored in a server which provides an interface to a network and at least one scan peripheral.

6. The program according to claim 1, stored in a computer connected to at least one scan peripheral.

7. The program according to claim 1, further comprising a functions for:

obtaining a model of scan peripheral for a peripheral when said function for determining determines that an appropriate capability descriptor was not received in response to a query conducted by said function for querying; and

associating a pre-stored capability descriptor with a scan peripheral whose model was determined by said step of obtaining.

8. A scan peripheral server having a network connection interface and one or more ports for connection to at least one scan peripheral, the server including:

memory for storing capability descriptors defining capabilities of scan peripherals;

memory for storing a set of driver modules; and

a program for controlling execution of scan jobs requested from the network connection of a scan peripheral connected to one of said one or more ports, the program comprising functions for

obtaining a capability descriptor from one or more scan peripherals connected to any of said one or more ports;

storing a received capability descriptor in said memory for storing capability descriptors;

accepting a scan job request from said network connection for one or more scan peripherals attached to said one or more ports;

extracting capability information from a stored capability descriptor in response to a scan job;

sending information to said network connection to modify a user interface;

accepting parameters for a scan job from said network connection;

linking driver modules from said set of driver modules according to capability information extracted by said function for extracting and parameters accepted by said function for accepting; and

controlling a scan job according to the driver modules linked in said function for linking.

9. The server according to claim 8, wherein a capability descriptor comprises a data string of capability data.

10. The server according to claim 8, wherein said program for controlling execution of scan jobs further comprises:

obtaining model information from any one or more scan peripherals connected to any of said one or more ports when said any one or more scan peripherals does not provide a capability descriptor; and

associating a capability descriptor pre-stored in said memory for storing capability descriptors with said any one or more scan peripherals which does not provide a capability descriptor according to model information obtained in said step of obtaining.

11. The server according to claim 8, wherein a data string is formatted as a data string including a scan language, an image format, a resolution and a preview scan capability.

12. A peripheral including a scanning capability, the peripheral comprising:

a scan system for scanning documents and producing electronic data therefrom;

an interface for connecting to a client machine or server;

memory for storing data;

a scan capability descriptor stored in said memory; and

a controller for communicating with said client machine or server through said interface to perform a scan job, said controller sending said capability descriptor to said client machine or server through said interface in response to a query requesting a capability descriptor.

13. A method for controlling a scan job directed to a peripheral including a scanning function, the method comprising steps of:

obtaining a capability descriptor from the peripheral including the scanning function; then, to implement a scan job,

configuring a scan driver from a set of scan drive modules based upon capabilities indicated by said capability descriptor and parameters included in the scan job.